

CREATING HOPE IN CONFLICT:

A HUMANITARIAN
GRAND CHALLENGE



FIELD READY | COST EFFECTIVENESS CASE STUDY

INTRODUCTION

Field Ready, a non-profit organization, has pioneered an innovation that incorporates local manufacturing thereby transforming the way that needs are met in humanitarian contexts. Field Ready locally manufactures and repairs essential items in the communities where they are most needed. As 60-80% of humanitarian aid is spent on ‘logistical costs,’¹ Field Ready’s goal is to influence systems change by reducing the costs, time and depletion of resources associated with global supply chains by producing and repairing essential items locally.

Field Ready has developed a process to transform logistics by manufacturing and/or repairing essential equipment using technology (e.g., 3-D printing) and local resources (people, local materials and markets). Field Ready has applied their innovative approach to various sectors such as health, water and sanitation (WASH), shelter and energy. Field Ready leverages the existing skills of affected communities and local materials, while also supporting capacity development through training and technical assistance. With CAD \$1M in *Creating Hope in Conflict: A Humanitarian Grand Challenge* funding, Field Ready is expanding their catalog of parts and devices in Syria and services 40 local health facilities in neglected communities across northern Syria.

¹ L. N. Van Wassenhove, “Humanitarian Aid Logistics: Supply Chain Management in High Gear”, Journal of the Operational Research Society 57(5):475-489 · May 2006

INTERVENTION DESIGN: CONTRIBUTION TO COST-EFFECTIVENESS

A key aspect of Field Ready's project is site assessments of Syrian health facilities. Decision matrices are developed and help the team prioritize *where* services are provided and *what* products/items require repairs or replacement. Multiple metrics are applied and adapted to accommodate for changing circumstances, such as COVID-19. From this analysis, Field Ready can determine ways to maximize their potential impact. This increases the efficiency of their operations by ensuring implementation aligns with where resources are needed most and how those resources can generate the greatest impact.

EFFECTIVENESS

In January 2020, *Creating Hope in Conflict: A Humanitarian Grand Challenge* awarded Field Ready with a CAD \$1M grant to scale their innovation in northern Syria, a program which provides funding until December 2021. With just over 30% of funds disbursed,² Field Ready has reached and improved the lives of over 5,000 users with critical health needs in targeted communities; 57% of users are female patients and 887 users are persons with disabilities. Users are patients from the community who access the local health facilities and who make use of essential medical devices that have been repaired by the Field Ready team. The team has repaired 64 essential medical devices—including sterilizers, incubators, and ventilators—and delivered three new products in 16 health facilities in Northwest Syria. In total, 1,380 facility-based health workers, 41% of whom are female health workers, are now able to make use of the innovation by regaining access to and administering critical medical devices which were previously not usable due to much needed repairs and maintenance.

Local facility managers have expressed their appreciation for Field Ready's support, which benefitted not only field doctors and nurses, but also engineers and maintenance staff on site. One facility received a new medical device as an in-kind donation, but staff were unclear on how to operate it. They requested Field Ready to train their healthcare staff on its operation, enabling the team to bring it back into use. This unexpected achievement demonstrates how Field Ready is providing the community with local capacity building and sharing opportunities, which enable communities to regain autonomy over their own well-being and retain the expertise needed to maintain these efforts on a long-term basis.

The team has experienced some programmatic constraints, including the onset of the COVID-19 pandemic, which delayed access to health facilities in Northwest Syria. Data collection was also difficult as the organization needed to first register in Turkey to gain access to Turkish-controlled areas of Syria. Despite these challenges, the team has great potential to reach their expected achievements and particularly enhance their overall cost-effectiveness after establishing the initial groundwork needed to scale the project.

² As of December 31, 2020

VALUE CREATED

In their latest reporting period,³ Field Ready met with health facility managers who reported the innovation saved them an abundance of time and money by making critical repairs to life-saving medical devices locally. One individual stated: *“The sterilizer in our facility had been broken for a year and a half, and local workshops could not fix it, and it would probably [take] years to get a sterilizer from abroad. When Field Ready’s team intervened, they were able to fix it in only 8 days.”*

Additionally, Field Ready’s team repaired an ambulance incubator, which would have cost at least USD \$2,500 through traditional means (via shipment to Turkey). Through Field Ready’s approach, the same incubator was repaired locally and brought back into use for \$700 USD. This small-scale example generated a cost savings of over 70% (\$1,800 USD), and if multiplied on a grander scale, has the potential to catalyze cost savings across the global humanitarian system.

Field Ready also creates environmental sustainability value through local manufacturing and repairs. This environmental value, on a grand scale, has systems-changing potential to significantly alter the carbon footprint of the USD \$28 billion-dollar global humanitarian system; a system which indirectly contributes to environmental degradation, weather extremities, food insecurity and other severe consequences of climate change.⁴ Specifically, the environmental burden of logistics and supply chains in the humanitarian system “are some of the main culprits in increasing the environmental footprint of humanitarian organizations.”⁵ By localizing humanitarian operations to manufacture, procure, repair and distribute goods closer to affected communities, the humanitarian system has the ability to contribute to a reduction of the harmful impacts of the current climate crisis. In line with Sphere principles and minimum standards in humanitarian response,⁶ by manufacturing essential products closer to where they are needed, Field Ready minimizes harmful environmental impacts by reducing cross-border transport and packaging costs and its associated carbon footprint through manufacturing and repairing goods locally and leveraging local market resources, instead of transporting goods across international borders. In this regard, Field Ready is adding significant environmental value through its locally grounded humanitarian operations.⁷

Field Ready’s localized approach also reinforces operational protection and safety for not only itself, but also has a positive ripple effect on other international humanitarian agencies operating in the community. Reputational risks can have catastrophic consequences in such contexts, and local acceptance is a key factor that contributes towards success. By bringing tangible value to the local community, by way of effective health products and services, increased local capacity and investment in local economies, Field Ready benefits the community, who in turn, offer

³ January 2021

⁴ For more information on the need to address the intersections of climate change and humanitarian crises, please see: <https://reliefweb.int/sites/reliefweb.int/files/resources/Groupe-URD-Inspire-studypublic.pdf>

⁵ <https://reliefweb.int/sites/reliefweb.int/files/resources/Groupe-URD-Inspire-studypublic.pdf>

⁶ The Sphere Handbook outlines core humanitarian principles and minimum standards in humanitarian response, and highlights that “programmes should minimise their environmental impact and consider how procurement, transport and choice of materials or land and natural resource use may protect or degrade the environment further. <https://www.eecentre.org/wp-content/uploads/2019/12/thematic-sheet-environment-EN.pdf>

⁷ For more information, please see: <https://www.fieldready.org/post/field-ready-s-way-reduces-environmental-impact>

protection, logistical support, and safe passage through complex and volatile landscapes. This delicate process of mutual exchange, in turn, also benefits the acceptance of other associated international humanitarian agencies in the community.

CHALLENGES AND RISK MITIGATION

Considering the volatility associated with working in a humanitarian setting such as Syria, Field Ready's project helps mitigate these risks by preserving and making better use of local resources, which in turn, saves the humanitarian system more money. As mentioned, transportation of parts and devices from outside Syria can be very costly and is often not a feasible expense for many local health facilities. Working in an active conflict zone also means this sensitive and costly equipment is also susceptible to looting and confiscation at checkpoints and potential damage along the way. Timeliness of delivery of goods is also an important consideration, and amidst checkpoints and volatile conditions, efficient and safe transport routes cannot always be guaranteed. By repairing essential items in local settings, risks associated with complex transport routes are lessened, which means resources are better preserved.

Innovation design is critical to Field Ready's work and the team ensures all product development meets international standards of quality. However, after conducting a risk assessment of the first products that were being developed in Syria, it was apparent this process did not meet the standard of "do-no-harm." The process was, in turn, revised despite the significant amount of time and effort that went into the design. This was a valuable lesson in which Field Ready recognized the need to conduct risk assessments at a very early stage, which then would better inform product design. Ensuring that product development meets international standards of quality is critical in upholding the "do-no-harm" principle in the design and implementation of Field Ready's innovation in local communities.

Given the risks imposed by COVID-19, Field Ready has also accounted for what this exposure could mean for health facilities and their staff when having to import equipment. However, with the initial spread, COVID-19 had implications on access as health facilities could not be reached for three months due to fears of increased transmission from frequently crossing check points. Protocols were eventually implemented, including quarantining medical devices for three days and sterilizing them prior to use.

Despite these challenges, by manufacturing locally and training local personnel, Field Ready has weighed the economic and social tradeoffs appropriately to ensure they are efficiently meeting the needs of the people who need it most.

EQUITY

Embedded in Field Ready's approach is a commitment to ensuring the program is equitable, and that women and other marginalized groups are not left behind. Field Ready's gender equity policy and practices ensure gender-equitable results. With the support of *Humanitarian Grand*

Challenge funding, Field Ready has also hired an external consultant to conduct a global gender audit to identify strengths and areas for improvement in their overall gender equity strategy.

One of the key priorities set for the project period was to ensure that needs assessments and project design processes are gender sensitive. This involved adding specific gender sections and questions in the Rapid Site Assessment Tool being used by the Field Ready Syria team to assess health facilities, as well as consulting with external experts to ensure that local recommendations are appropriately reflecting the health needs of women and girls. Field Ready is also modelling gender equity through supporting the global management team and including the voices of female Syrian medical staff in the design process. Additionally, the disaggregation of results by gender, age and disability status are also streamlined into Field Ready's monitoring activities. This helps ensure Field Ready is accounting for the most vulnerable populations in their programming.

From the outset, gender equity is embedded into Field Ready's approach; however, protection of staff and local partners remains a primary concern. Considering Field Ready operates in a violent context, female staff frequently crossing check points imposes acute security risks. Due to heightened risks for women in this context, Field Ready faced unanticipated difficulties when attempting to hire a female data specialist. Field Ready has an ongoing commitment to achieving gender balance in the workplace.

COST-EFFECTIVENESS

Field Ready's achievements to date are impressive, and there is strong evidence to support the cost-effectiveness of this project. As of December 2020, Field Ready has spent just over 30% of its CAD \$1M grant, and there is still significant opportunity to continue to advance further successes with the remaining funds. The project has however faced considerable challenges and risks continue to remain high. Targets were set before the COVID-19 pandemic and the onset of the coronavirus has been extremely disruptive and unexpectedly slowed implementation. Despite these setbacks, Field Ready has adapted to these challenges and the line of sight to achievements in 2021 is very promising. Overall, HGC considers this project to have achieved good value for money.

